

*Q3
cont.*

a first step (i) preparing a master batch containing about 40 - 95 parts by weight of polyphenylene ether (PPE) (B), about 5 - 60 parts by weight of compatibilizer (C) and about 0 - 30 parts by weight of aromatic phosphoric acid ester compound (D) at about 250 - 300 °C of molding temperature; and then

a subsequent second step (ii) adding a rubber modified styrene-containing resin (A) and aromatic phosphoric acid ester compound (D) to the master batch and extruding the resulting mixture at about 200 - 260 °C.

REMARKS

The independent claims have been amended to recite methacrylonitrile as a comonomer for (a1) and (a2). Support for the amendment is found on pages 6 and 7 of the specification. No new matter is added.

A prompt and favorable action on the merits is respectfully requested.

Respectfully submitted,

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VERSION SHOWING CHANGES MADE IN THE AMENDMENT

IN THE CLAIMS:

Claim 1 (Once amended). A flameproof thermoplastic resin composition substantially free of phenolic resin and red phosphorous comprising:

(A) about 40 - 95 parts by weight of a rubber modified styrene-containing resin

5 comprising:

(a1) about 20 - 95 % by weight of a styrene-containing graft copolymer resin containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile in the copolymer excluding rubber and

10 (a2) about 5 - 80 % by weight of a styrene-containing copolymer containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile ;

(B) about 5 - 60 parts by weight of a polyphenylene ether resin;

(C) about 2 - 40 parts by weight of a compatibilizer comprising

15 (c1) a styrene-containing copolymer containing about 5 - 18 % by weight of acrylonitrile in the copolymer per 100 parts by weight of the sum of (A) and (B) or

(c2) a styrene-containing graft copolymer having up to about 60% by weight of rubber wherein the compatibilizer contains about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B); and

20 (D) about 5 - 30 parts by weight of an aromatic phosphoric acid ester per 100 parts by weight of the sum of (A) and (B),

wherein the resin composition contains less than 3% by weight of polycarbonate based on the total weight of the composition.

25 Claim 15 (Once amended). A flameproof thermoplastic resin composition comprising:

(A) about 40 - 95 parts by weight of a rubber modified styrene-containing resin comprising

- (a₁) about 20 - 95 % by weight of a styrene-containing graft copolymer resin containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile in the copolymer excluding rubber and
- (a₂) about 5 - 80 % by weight of a styrene-containing copolymer containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile ;
- (B) about 5 - 60 parts by weight of a polyphenylene ether resin;
- (C) about 2 - 40 parts by weight of a compatibilizer comprising
- (c1) a styrene-containing copolymer containing about 5 - 18 % by weight of acrylonitrile in the copolymer per 100 parts by weight of the sum of (A) and (B) or
- (c2) a styrene-containing graft copolymer having up to about 60% by weight of rubber wherein the compatibilizer contains about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B); and
- (D) about 5 - 30 parts by weight of an aromatic phosphoric acid ester per 100 parts by weight of the sum of (A) and (B),
- wherein the resin composition contains about 0 % by weight of phenolic resin, red phosphorous, and silicone resin based on the total weight of the composition.
- Claim 23 (Once amended). A flameproof thermoplastic resin composition substantially free of phenolic resin and red phosphorous comprising:
- (A) about 40 - 95 parts by weight of a rubber modified styrene-containing resin comprising
- (a1) about 20 - 95 % by weight of a styrene-containing graft copolymer resin containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile in the copolymer excluding rubber and
- (a2) about 5 - 80 % by weight of a styrene-containing copolymer containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile;
- (B) about 5 - 60 parts by weight of a polyphenylene ether resin;
- (C) about 2 - 40 parts by weight of a compatibilizer comprising

- (c1) a styrene-containing copolymer containing about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B) or
- 5 (c2) a styrene-containing graft copolymer having up to about 60% by weight of rubber wherein the compatibilizer contains about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B); and
- (D) about 5 - 30 parts by weight of an aromatic phosphoric acid ester per 100 parts by weight of the sum of (A) and (B),
- 10 wherein the resin composition contains about 0% by weight silicone resin based on the total weight of the composition.

Claim 24 (Once amended). A flameproof thermoplastic resin composition substantially free of phenolic resin and red phosphorous comprising:

- 15 (A) about 40 - 95 parts by weight of a rubber modified styrene-containing resin comprising
- (a1) about 20 - 95 % by weight of a styrene-containing graft copolymer resin containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile in the copolymer excluding rubber and
- 20 (a2) about 5 - 80 % by weight of a styrene-containing copolymer containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile ;
- (B) about 5 - 60 parts by weight of a polyphenylene ether resin;
- (C) about 2 - 40 parts by weight of a compatibilizer comprising
- 25 (c1) a styrene-containing copolymer containing about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B) or
- (c2) a styrene-containing graft copolymer having up to about 60% by weight of rubber wherein the compatibilizer contains about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of
- 30 the sum of (A) and (B); and

(D) about 5 - 30 parts by weight of an aromatic phosphoric acid ester per 100 parts by weight of the sum of (A) and (B),

wherein the resin composition contains less than 3 % by weight of polycarbonate based on the total weight of the composition, wherein the resin composition is produced in a two-step process comprising

a first step (i) preparing a master batch containing about 40 - 95 parts by weight of polyphenylene ether (PPE) (B), about 5 - 60 parts by weight of compatibilizer (C) having about 5 - 18 % by weight of acrylonitrile content, and about 0 - 30 parts by weight of aromatic phosphoric acid ester compound (D) at about 250 - 300 °C of molding temperature; and

a subsequent second step (ii) adding a rubber modified styrene-containing resin (A) and aromatic phosphoric acid ester compound (D) to the master batch and extruding the resulting mixture at about 200 - 260 °C.

Claim 25 (Once amended). A method of producing a flameproof thermoplastic resin

composition substantially free of phenolic resin and red phosphorous and contains less than 3 % by weight of polycarbonate based on the total weight of the composition wherein the resin composition comprises

(A) about 40 - 95 parts by weight of a rubber modified styrene-containing resin comprising

(a1) about 20 - 95 % by weight of a styrene-containing graft copolymer resin containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile in the copolymer excluding rubber and

(a2) about 5 - 80 % by weight of a styrene-containing copolymer containing about 19 - 50 % by weight of acrylonitrile or methacrylonitrile ;

(B) about 5 - 60 parts by weight of a polyphenylene ether resin;

(C) about 2 - 40 parts by weight of a compatibilizer comprising

(c1) a styrene-containing copolymer containing about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B) or

(c2) a styrene-containing graft copolymer having up to about 60% by weight of rubber wherein the compatibilizer contains about 5 - 18 % by weight of acrylonitrile in the copolymer excluding rubber, per 100 parts by weight of the sum of (A) and (B); and

5 (D) about 5 - 30 parts by weight of an aromatic phosphoric acid per 100 parts by weight of the sum of (A) and (B),
wherein the method is a two-step process comprising

a first step (i) preparing a master batch containing about 40 - 95 parts by weight of polyphenylene ether (PPE) (B), about 5 - 60 parts by weight of compatibilizer (C) and about 0 -
10 30 parts by weight of aromatic phosphoric acid ester compound (D) at about 250 - 300 °C of molding temperature; and then

a subsequent second step (ii) adding a rubber modified styrene-containing resin (A) and aromatic phosphoric acid ester compound (D) to the master batch and extruding the resulting mixture at about 200 - 260 °C.